

Contents of Volume 31

No. 1

January 1995

A.J. Hendriks (The Netherlands)

- Modelling equilibrium concentrations of microcontaminants in organisms of the Rhine delta: Can average field residues in the aquatic foodchain be predicted from laboratory accumulation? 1

S. Huuskonen and P. Lindström-Seppä (Finland)

- Hepatic cytochrome P4501A and other biotransformation activities in perch (*Perca fluviatilis*): the effects of unbleached pulp mill effluents 27

T.O. Jones, J.N.C. Whyte, L.D. Townsend, N.G. Ginther and G.K. Iwama (Canada)

- Effects of domoic acid on haemolymph pH, PCO₂ and PO₂ in the Pacific oyster, *Crassostrea gigas* and the California mussel, *Mytilus californianus* 43

S.L. Wong, J.F. Wainwright and J. Pimenta (Canada)

- Quantification of total and metal toxicity in wastewater using algal bioassays 57

L.J.A. Gerringa, J.W. Rijstenbil, T.C.W. Poortvliet, J. van Drie and M.C. Schot (The Netherlands)

- Speciation of copper and responses of the marine diatom *Ditylum brightwellii* upon increasing copper concentrations 77

No. 2

February 1995

M. Laitinen and T. Valtonen (Finland)

- Cardiovascular, ventilatory and haematological responses of brown trout (*Salmo trutta* L.), to the combined effects of acidity and aluminium in humic water at winter temperatures 99

C. Zeni, A. Stagni Caligiuri and M.R. Bovolenta (Italy)

- Damage and recovery of *Ictalurus* sp. barbel taste buds exposed to sublethal concentrations of an anionic detergent 113

T. Assmuth and S. Penttilä (Finland)

- Characteristics, determinants and interpretations of acute lethality in daphnids exposed to complex waste leachates 125

F. Regoli and G. Principato (Italy)

- Glutathione, glutathione-dependent and antioxidant enzymes in mussel, *Mytilus galloprovincialis*, exposed to metals under field and laboratory conditions: implications for the use of biochemical biomarkers 143

A. Cid, C. Herrero, E. Torres and J. Abalde (Spain)

- Copper toxicity on the marine microalga *Phaeodactylum tricornutum*: effects on photosynthesis and related parameters 165

G.M. Fahl, L. Kreft, R. Altenburger, M. Faust, W. Boedeker and L.H. Grimme (Federal Republic of Germany)

pH-Dependent sorption, bioconcentration and algal toxicity of sulfonylurea herbicides 175

No. 3

March 1995

L. Viganò, A. Arillo, S. De Flora and J. Lazorchak (Italy, USA)

Evaluation of microsomal and cytosolic biomarkers in a seven-day larval trout sediment toxicity test 189

D.R. Buckler, L. Cleveland, E.E. Little and W.G. Brumbaugh (USA)

Survival, sublethal responses, and tissue residues of Atlantic salmon exposed to acidic pH and aluminum 203

S. Biagianti-Risbourg and J. Bastide (France)

Hepatic perturbations induced by a herbicide (atrazine) in juvenile grey mullet *Liza ramada* (Mugilidae, Teleostei): an ultrastructural study 217

P.B. Singh and D.E. Kime (UK)

Impact of γ -hexachlorocyclohexane on the in vitro production of steroids from endogenous and exogenous precursors in the spermiating roach, *Rutilus rutilus* 231

S.J. Srivastava, N.D. Singh, A.K. Srivastava and R. Sinha (India)

Acute toxicity of malachite green and its effects on certain blood parameters of a catfish, *Heteropneustes fossilis* 241

C.M. Brumley, V.S. Haritos, J.T. Ahokas and D.A. Holdway (Australia)

Validation of biomarkers of marine pollution exposure in sand flathead using Aroclor 1254 249

J.F. Børseth, T. Aunaas, J.-P. Denstad, T. Nordtug, A.J. Olsen, R. Schmid, G. Skjærvø and K.E. Zachariassen (Norway)

Transmembrane sodium energy gradient and calcium content in the adductor muscle of *Mytilus edulis* L. in relation to the toxicity of oil and organic chemicals 263

No. 4

April 1995

R. Cornwall, B.H. Toomey, S. Bard, C. Bacon, W.M. Jarman and D. Epel (USA)

Characterization of multixenobiotic/multidrug transport in the gills of the mussel *Mytilus californianus* and identification of environmental substrates 277

S. Lemaire-Gony, P. Lemaire and A.L. Pulsford (UK)

Effects of cadmium and benzo(a)pyrene on the immune system, gill ATPase and EROD activity of European sea bass *Dicentrarchus labrax* 297

E.W. Zabel, P.M. Cook and R.E. Peterson (USA)

Toxic equivalency factors of polychlorinated dibenzo-*p*-dioxin, dibenzofuran and biphenyl congeners based on early life stage mortality in rainbow trout (*Oncorhynchus mykiss*) 315

R. Soimasuo, I. Jokinen, J. Kukkonen, T. Petänen, T. Ristola and A. Oikari (Finland)

Biomarker responses along a pollution gradient: Effects of pulp and paper mill effluents on caged whitefish 329

A.B.S. Poléo (Norway)

Aluminium polymerization — a mechanism of acute toxicity of aqueous aluminium to fish 347

Contents to Volume 31 357